

Coal Unsuitability Criteria Analysis

Forest Plan Revision 2017

With respect to considering coal resources in land management planning, the Manti-La Sal NF is following direction established in FSH 1909.12 Chapter 20, Section 23.23i (4)(c). This FS directive commits the FS to following established procedures in the BLM regulations at 43 CFR 3420.1-4, General Requirements for land use planning, where it states, that the “*Department of Agriculture or any other Federal agency with surface management authority over lands subject to leasing shall prepare comprehensive land use plans or land use analyses for lands it administers.*” Further, FSH 1909.12 chapter 20 also states that, “*Plan components that deal with minerals must be in accord with Agency jurisdiction, applicable law and Federal regulations, such as coal leasing (43 CFR part 3420).*” These regulations include reviewing the lands to assess where there are areas that may be unsuitable for all or certain stipulated methods per the criteria in 43 CFR 3461. Therefore, for the purposes of land management planning, the Manti-La Sal National Forest is following established procedures to evaluate if lands with coal development potential may be unsuitable for coal mining.

The Forest Service has also entered into an interagency agreement with the Bureau of Land Management (BLM) to cooperate and coordinate in the application of unsuitability criteria under the general provisions of the Surface Mining Control and Reclamation Act (SMCRA) of 1977. This “*Memorandum of Understanding (MOU) authorizes the Secretary of Agriculture to assess whether lands within the National Forest System boundaries are unsuitable for surface coal mining operations as part of the Federal lands review under Section 522 of the SMCRA. This delegation is made in order to facilitate the use of surface management agency land use planning as the integrated method for resource inventory and evaluation; to avoid duplication of agency efforts and increase efficiency and to assure the systematic application of the unsuitability criteria, and exceptions, in agency planning that involves a Federal lands review*” (need MOU citation).

The Forest has chosen to begin this analysis at the assessment stage of the Forest Plan Revision process.

Federal lands are assessed as unsuitable for all or certain stipulated methods of coal mining according to 20 criteria in 43 CFR 3461.5. The procedure includes considering applicability of exceptions and exemptions established in the regulations for each criteria. The authority for issuance of these regulations is referenced under 43 CFR §3461.0-3.

The Manti-La Sal National Forest is doing this at the land management phase because it is a requirement in 43 CFR 3420.1-4(e)(2). The Forest Service adopted the procedures in 43 CFR 3420 for handling coal resources in our land management, including the procedures for application of the unsuitability criteria in 43 CFR 3461 in our planning efforts in Forest Service Handbook 1909.12, Chapter 20, Section 23.23i, item 4c. Doing so also furthers the intent of agreement made in the USDA/USDI and FS/BLM 1980 MOU, *Providing for Coordination of Activities Pursuant to the Federal Coal Management Program*.

The Manti-La Sal NF land management planning effort applied the criteria to the lands with known coal resource potential as shown on the attached map, Coal Development Potential (Appendix A). The assessment is provided below.

The regulations include a general exemption for underground mining found at 43 CFR §3461.1 which states:

(a) Federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in §3400.0-5 of this title, on any lease, if issued.

(b) Where underground mining will include surface operations and surface impacts on Federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency finds that a relevant exception or exemption applies.

Criterion Number 1. All Federal lands included in the following land systems and categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests, and Federal lands in incorporated cities, towns, and villages.

Exceptions. (1) A lease may be issued within the boundaries of any National Forest if the Secretary finds no significant recreational, timber, economic or other values which may be incompatible with the lease; and (A) surface operations and impacts are incident to an underground coal mine, or (B) where the Secretary of Agriculture determines, with respect to lands which do not have significant forest cover within those National Forests west of the 100th Meridian, that surface mining may be in compliance with the Multiple-Use Sustained-Yield Act of 1960, the Federal Coal Leasing Amendments Act of 1976 and the Surface Mining Control and Reclamation Act of 1977.

Analysis – The underground mining exemption (43 CFR §3461.1) and above exception [(1)(A)] apply, pending further analyses, for underground mining and the surface effects incident to underground mining. Only underground mining is feasible on the Manti-La Sal National Forest due to thick overburden. In general, underground mining and necessary surface facilities and the surface effects of underground mining, would be in compliance with the Multiple-Use Sustained-Yield Act of 1960, the Federal Coal Leasing Amendments Act of 1976 and the Surface Mining Control and Reclamation Act. Under these laws the Forest Supervisor and other responsible agencies have authority to regulate proposed leases and mining actions such that they would be compatible with the purposes of managing National Forest System lands.

In the Surface Mining Control and Reclamation Act significant forest cover means an existing plant community consisting predominantly of trees and other woody vegetation.

The Secretary of Agriculture shall decide on a case-by-case basis whether the forest cover is significant within those national forests west of the 100th meridian).

All National Forest System lands of the Manti-La Sal National Forest would be unsuitable for surface mining. The required depth of overburden removal (in some places greater than 2000 feet) makes surface mining economically and environmentally unfeasible on the Forest. Surface mining could result in significant impacts to surface resources such as recreational, timber, watersheds, municipal water supplies, wildlife, T&E species, range, soils, aquatic ecosystems, and air quality.

Criterion Number 2. Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes, on federally owned surface shall be considered unsuitable.

Exceptions. A lease may be issued, and mining operations approved, in such areas if the surface management agency determines that:

- (i) All or certain types of coal development (e.g. underground mining) will not interfere with the purpose of the right-of-way or easement; or
- (ii) The right-of-way or easement was granted for mining purposes; or
- (iii) The right-of-way or easement was issued for a purpose for which it is not being used; or
- (iv) The parties involved in the right-of-way or easement agree, in writing, to leasing; or
- (v) It is impractical to exclude such areas due to the location of coal and method of mining and such areas or uses can be protected through appropriate stipulations.

Analysis - There are currently approximately 350 Forest Service Special Use Authorizations on the Manti-La Sal National Forest. This does not include Special Use Permits that are temporary in nature or don't occupy a specific area such as: Recreation Events, Outfitter and Guides, Film Permits, Research Permits, etc. Rights-of way would be unsuitable for surface mining since surface mining would be incompatible with the purposes for which the rights-of-way were issued. The exceptions listed above would apply. Therefore, rights-of-way would be generally suitable for further consideration for leasing and for underground mining since the authorities available for future lease decisions, including the ability to stipulate protections, and mine permits would be adequate to protect them from surface facilities or effects of underground mining or to preserve the purposes for which the rights-of-way were issued. Stipulated methods of mining in individual leases could protect rights-of-way from the surface effects of mining or allow surface effects if agreements can be made with the holders of rights-of-way to allow activities with provisions for mitigation. Suitability for individual lease proposals would be determined based on site-specific analyses.

Criterion Number 3. The terms used in this criterion have the meaning set out in the Office of Surface Mining Reclamation and Enforcement regulations at Chapter VII of

Title 30 of the Code of Federal Regulations. Federal lands affected by section 522(e) (4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

Exceptions. A lease may be issued for lands:

- (i) Used as mine access roads or haulage roads that join the right-of-way for a public road;
- (ii) For which the Office of Surface Mining Reclamation and Enforcement has issued a permit to have public roads relocated;
- (iii) If, after public notice and opportunity for public hearing in the locality, a written finding is made by the authorized officer that the interests of the public and the landowners affected by mining within 100 feet of a public road will be protected.
- (iv) For which owners of occupied dwelling have given written permission to mine within 300 feet of their buildings.

Analysis – The underground mining exemption (43 CFR §3461.1) and the exemption for surface operations and impacts that are incident to an underground coal mine [(Surface Mining Control and Reclamation Act, Section 522 (e) (2) (A))] would apply.

Criterion Number 4. Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

Exemption. The application of this criterion to lands for which the Bureau of Land Management is the surface management agency and lands in designated wilderness areas in National Forests is subject to valid existing rights.

Analysis – There are no designated wilderness study areas on the Forest in areas identified as having coal development potential. Wilderness study areas are lands designated by Congress for further study before final designation as Wilderness. These lands are managed in the same manner as designated wilderness, so that, if they become wilderness, their Wilderness character is preserved. There are no areas currently under consideration for wilderness designation by the Administration and the Congress. The Forest is administratively reviewing National Forest System lands for potential wilderness character under requirements of Forest Plan Revision. Any areas being evaluated for potential wilderness character and coal leasing would be evaluated in an environmental assessment or impact statement relative to wilderness characteristics prior

to leasing. If the finding regarding wilderness is affirmative, the subject area would be considered unsuitable.

Criterion Number 5. Scenic Federal lands designated by visual resource management analysis as Class I (areas of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable.

Exception. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

Analysis – There are six visual resource management Class I areas as Class with a total of 1,161 acres, not currently in the National Register of Natural Landmarks in the coal development potential area. . The underground mining exemption (43 CFR §3461.1) and the exemption for surface operations and impacts that are incident to an underground coal mine [(Surface Mining Control and Reclamation Act, Section 522 (e) (2) (A)] would apply.

Criterion Number 6. Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

Exemptions. The criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Analysis – For the purposes of land management planning, there are no Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments in the coal development potential area. The exemption to this criteria would still apply if future permits become available.

Criterion Number 7. All publicly or privately owned places which are included in the National Register of Historic Places shall be considered unsuitable. This shall include any areas that the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, are necessary to protect the inherent values of the property that made it eligible for listing in the National Register.

Exceptions. All or certain stipulated methods of coal mining may be allowed if, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, they are approved by the surface management agency, and where appropriate, the State or local agency with jurisdiction over the historic site.

Analysis – There are two sites within the Forest boundary listed in the National Register of Historic Places. The Great Basin Experimental Station (portions of Sections 21 and 22, T17S, R4E, SLM, Sanpete County, Utah) is in an area identified as having moderate coal development potential on the west side of the Wasatch Plateau. Pinhook Battleground, located in T26S, R24E in the southeastern part of PB 42 on the north side of the La Sal Mountains, is in an area not identified as having coal development potential. The Stewart Guard Station, located in the SW ¼, Section 9, T15S, R7E is eligible for listing in the National Register of Historic Places; this is in an area identified as having high coal development potential. For the purposes of land management planning, the exemption to this criteria would apply to the two sites within the coal development potential area. All sites would be inventoried and evaluated for eligibility or potential listing in the National Register of Historic Places in consultation with the State Historic Preservation Officer and Advisory Council prior to leasing.

Criterion Number 8. Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

Exceptions. A lease may be issued and mining operations approved in an area or site if the surface management agency determines that:

- (i) The use of appropriate stipulated mining technology will result in no significant adverse impact to the area or site; or
- (ii) The mining of the coal resource under appropriate stipulations will enhance information recovery (e.g., paleontological sites).

Analysis – Currently there are no National Natural Landmarks within areas identified as having coal development potential within the Manti-La Sal National Forest. For the purposes of land management planning if any sites are designated as natural areas or National Natural Landmarks the exemption to this criteria would apply.

Criterion Number 9. Federally designated critical habitat for listed threatened or endangered plant and animal species, and habitat proposed to be designated as critical for listed threatened or endangered plant and animal species or species proposed for listing, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

Exception. A lease may be issued and mining operations approved if, after consultation with the Fish and Wildlife Service, the Service determines that the proposed activity is not likely to jeopardize the continued existence of the listed species and/or its critical habitat.

Analysis – This criterion addresses both designated critical habitat as well as areas of scientifically documented listed species. Lands identified within the Forest as having coal development potential are limited to the North Zone. As such, this criterion is most appropriately applied to proposed leasing and mining areas based on site-specific analyses. The underground mining exemption (43 CFR §3461.1) and the exemption for surface operations and impacts that are incident to an underground coal mine [(Surface Mining Control and Reclamation Act, Section 522 (e) (2) (A))] would apply. The list of species is constantly changing and use of an area by listed species can change each year based on behavioral factors and conditions.

Federally listed species as well as designated critical habitats are managed by the Endangered Species Program of the U.S. Fish and Wildlife Service. There is designated critical habitat on the Forest for two species. The Heliotrope milkvetch, found on the North Zone, which is within lands identified as having coal development potential and the Mexican spotted owl, which is located on the South Zone, and is not within lands identified as having coal development potential. Species listed under the Endangered Species Act are threatened or endangered. The U.S. Fish and Wildlife Services' (USFWS) Information for Planning and Conservation (IPaC) also shows species that are candidates, or proposed, for listing. See the (IPaC) listing status page for more information.

The following species report for federally listed (threatened and endangered) as well as candidate and species proposed for listing was obtained through the IPaC system on April 10, 2017. To access the IPaC system, visit the USFWS Endangered Species website. The table below lists those species that may occur within Forest lands designated as having coal development potential and are subject to change and should be reviewed periodically.

Common Name	Scientific Name	Status
Aquatic Wildlife Species		
Bonytail ±	<i>Gila elegans</i>	E
Colorado Pikeminnow ±	<i>Ptychocheilus lucius</i>	E
Humpback Chub ±	<i>Cila cypha</i>	E
June Sucker	<i>Chasmistes lionus</i>	E
Razorback Sucker ±	<i>Xyrauchen texanus</i>	E
Terrestrial Wildlife Species		
California condor	<i>Gymnogyps californianus</i>	X

Canada Lynx	<i>Lynx canadensis</i>	T
Mexican Spotted Owl (C)*	<i>Strix occidentalis</i>	T
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E
Utah Prairie Dog	<i>Cynomys parvidens</i>	T
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	T
Plants		
Barneby Reed-Mustard	<i>Schoenocrambe barnebyi</i>	E
Clay Phacelia	<i>Phacelia argillacea</i>	E
Deseret Milkvetch	<i>Astragalus desereticus</i>	T
Heliotrope Milk-vetch (C)	<i>Astragalus montii</i>	T
Jones Cycladenia	<i>Cycladenia humilis var. jonesii</i>	T
Last Chance Townsendia	<i>Townsendia aprica</i>	T
San Rafael Cactus	<i>Pediocactus despainii</i>	E
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	T
Winkler Cactus	<i>Pediocactus winkleri</i>	T

E- Endangered, T – Threatened, X- Experimental, (C) – Critical Habitat

± Water depletions from any portion of the occupied drainage basin are considered to adversely affect or adversely modify the critical habitat of the endangered fish species, and must be evaluated with regard to the criteria described in the pertinent fish recovery populations.

(C) There is critical habitat designated for the Heliotrope milkvetch within lands having coal development potential.

* Mexican spotted owl is on the IPaC list because it has the potential to occur on the North Zone; however, the only designated critical habitat exists on the South Zone where coal development potential has not been identified.

Criterion Number 10. Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a state pursuant to state law as endangered or threatened shall be considered unsuitable.

Exception. A lease may be issued and mining operations approved if, after consultation with the state, the surface management agency determines that the species will not be adversely affected by all or certain stipulated methods of coal mining.

Analysis – This criterion is most appropriately applied to proposed leasing and mining areas based on site-specific analyses. The underground mining exemption (43 CFR §3461.1) and the exemption for surface operations and impacts that are incident to an underground coal mine [(Surface Mining Control and Reclamation Act, Section 522 (e)

(2) (A)] would apply.

The State of Utah does not maintain a separate list of endangered or threatened species; however, it does maintain two species lists which identify species of concern for the State. The lists were created under differing legal requirements resulting in differences between the lists. Both lists are reviewed by the State when making land management decisions. These lists are the:

- 1) Utah's Sensitive Species List: This list is created and maintained pursuant to the Utah Division of Wildlife Resources Administrative Rule R657-48. This Rule is pursuant to sections 23-14-19 and 63-34-5(2). Under this Rule, the sensitive species list is intended to "...*preclude listing under the ESA...*" (Italics added).
- 2) Wildlife Action Plan - Species of Greatest Conservation Need (SGCN): In order to qualify for Federal grant funds through the USFWS State Wildlife Grant (SWG) Program, Utah is required to have a completed state Wildlife Action Plan (WAP); all WAPs must include the identification of SGCN. State WAPs, including identification of WAPs are intended for "...*conserving wildlife and habitat before they become too rare or costly to restore*" (Italics added).

The list of Utah sensitive species by county, as well as the WAP SGCN by county or in its entirety can be found on the Utah Division of Wildlife Resources webpage. Updated lists by North Zone Counties (as of April 10, 2017) may be found in Appendices B and C. The lists of species may change over time and the use of an area by listed species can change each year based on behavioral factors and conditions.

Criterion Number 11. A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Exceptions. A lease may be issued if:

- (i) It can be conditioned in such a way, either in manner or period of operation, that eagles will not be disturbed during breeding season; or
- (ii) The surface management agency, with concurrence of the Fish and Wildlife Service, determines that the golden eagle nest(s) will be moved.
- (iii) Buffer zones may be decreased if the surface management agency determines that the active eagle nests will not be adversely affected.

Analysis – Golden eagles are year-round residents while bald eagles are mostly winter migrants with only small numbers nesting in Utah. There are no known bald eagle nest sites on or directly adjacent to the areas identified as having coal development potential; however, there are numerous golden eagle nests located throughout those areas. Golden eagles establish territories and each territory may contain numerous nests. Nesting pairs

tend several nests in their territory and occasionally build new nests. One nest is selected each year for occupancy. The underground mining exemption (43 CFR §3461.1) generally applies. Leases can be conditioned to meet the requirements of the exception, and therefore does not find the lands unsuitable for the purposes of land management planning. Application of this criterion at the lease-specific stage would result in identification of specific protections.

Criterion Number 12. Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

Exception. A lease may be issued if the surface management agency determines that all or certain stipulated methods of coal mining can be conducted in such a way, and during such periods of time, to ensure that eagles shall not be adversely disturbed.

Analysis – There are no known bald eagle roost or concentration areas within areas identified as having coal development potential. In regard to golden eagles, the underground mining exemption (43 CFR §3461.1) applies to all areas identified as having coal development potential on the Forest. Application of this criterion at the lease-specific stage would result in stipulated methods of coal mining conducted in such a way, and during such periods of time, to ensure that eagles shall not be adversely disturbed. Therefore, the exception to this criteria would apply to golden eagle roost and concentration areas prior to leasing. This criteria is more appropriately addressed at the leasing stage rather than for purposes of land management planning..

Criterion Number 13. Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Exception. A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the falcon habitat during the periods when such habitat is used by the falcons.

Analysis - Preferred nesting habitat for the peregrine falcon is on cliff faces with recesses or protected shelves, but they will occasionally use abandoned stick nests of other species. The nest consists of a scrape or depression dug in gravel on a cliff ledge. Some peregrines have accepted manmade structures as breeding sites.

A wide variety of habitats are used for foraging, including riparian woodlands, open country near rivers and marshes, coniferous and deciduous forest edges, shrub lands, and prairies. They prey on a wide variety of birds including pigeons, shorebirds, waterfowl, grouse, and other small to mediums sized terrestrial birds. Peregrines may travel up to 18

miles from the nest site to hunt for food; however, a 10-mile radius around the nest is an average hunting area, with 80% of foraging occurring within a mile of the nest (Spahr et al. 1991). There are known peregrine falcon eyries located within areas designated as having coal development potential. If falcon habitat is identified as part of the site-specific analysis during leasing, then specific protection measures will be identified at that time. This criteria is more appropriately addressed at the leasing stage rather than for purposes of land management planning. The underground mining exemption (43 CFR §3461.1) applies to all areas identified as having coal development potential on the Forest. The exemption to this criteria will also apply if lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest are identified.

Criterion Number 14. Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

Exception. A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the migratory bird habitat during the periods when such habitat is used by the species.

Analysis – Species-specific habitat maps are not available for all species; as such site-specific species monitoring is used to identify if a species of high priority is within a proposed lease area. Any habitat utilized by a high priority species for nesting, migration or wintering is treated as high priority habitat. The following priority species of high Federal and/or State interest have been identified by US Fish and Wildlife Birds of Conservation Concern (Southern Rockies/Colorado Plateau BCR 2008 List) and 2016 Utah Partners In Flight Land Bird Conservation Plan BCR 16. There is some cross-over between lists and some species are covered by Criteria 9, 11, and 13. Site-specific analyses would occur during proposed leasing and specific protection measures will be identified at that time, therefore the exception to this criteria applies. This criteria is more appropriately addressed at the leasing stage rather than for purposes of land management planning.

Species that have not been detected during the 2015 and 2016 IMBCR have been removed from the lists. All water bird species are still included as the IMBCR did not survey for these species.

Species Common Name	USFWS Birds of Conservation Concern	Partners in Flight Land Bird Conservation Plan
American Bittern	X	
Bald Eagle	X	
Brewer's Blackbird		X
Brewer's Sparrow	X	

Cassin's Finch	X	X
Common Nighthawk		X
Eared Grebe	X	
Evening Grosbeak		X
Flammulated Owl	X	X
Fox Sparrow	X	
Golden Eagle	X	
Grace's Warbler		X
Gray Vireo	X	X
Greater Sage Grouse	X	X
Horned Lark		X
Juniper Titmouse	X	
Lewis's Woodpecker	X	X
Long-billed Curlew	X	
Mexican Spotted Owl		X
Olive-sided Flycatcher	X	X
Peregrine Falcon	X	
Pine Siskin		X
Pinyon Jay	X	X
Prairie Falcon	X	
Sage Thrasher	X	
Short-eared Owl	X	
Veery	X	
Virginia's Warbler		X
Western Grebe	X	
Williamson's Sapsucker	X	
Willow Flycatcher	X	
Yellow-billed Cuckoo	X	

Criterion Number 15. Federal lands which the surface management agency and the state jointly agree are habitat for resident species of fish, wildlife and plants of high interest to the state and which are essential for maintaining these priority wildlife and plant species shall be considered unsuitable. Examples of such lands which serve a critical function for the species involved include:

- (i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse, and prairie chicken;
- (ii) Winter ranges crucial for deer, antelope, and elk;
- (iii) Migration corridor for elk; and
- (iv) Extremes of range for plant species; and

A lease may be issued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.

Exemptions. This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Analysis – Species use within the Forest can change each year based on behavioral functions and/or substantial changes in habitat conditions, however, use of some areas within the Forest remains consistent on an annual basis. Due to this complexity, this criterion is most appropriately applied to proposed leasing and mining areas based on site-specific analyses rather than for the purposes of land management planning. The exemption to this criteria would apply, if identified.

- (i) There are active greater sage grouse leks and priority habitat within areas identified as having coal development potential, see map located in Appendix D. There are standards and guidelines in the Greater Sage Grouse ROD that are applicable to identified lands with coal development potential, located in Appendix E. These standards and guidelines will be evaluated as part of the site-specific analysis during.
- (ii) Big game key and general winter ranges have been delineated for the Manti-La Sal National Forest. State data was used in delineating this layer. Some of these important seasonal habitats are within areas identified as having coal development potential. The UDWR has delineated their own deer and elk habitat layers that are very similar but differ slightly in terminology and acres. Maps of the Forest winter ranges and UDWR winter ranges can be found in Appendices F and G.
- (iii) While species are known to seasonally migrate through the Forest, there are mapped migration corridors within the Forest boundary. This criteria is most appropriately applied to proposed leasing and mining areas based on site-specific analyses.
- (iv) There are no identified areas on the Forest, within lands identified as having coal development potential, that are at the extreme range for known plant species. Species for which the entire known range exists within the Forest boundary, and which occur within lands identified as having coal development potential are addressed under criteria 9 and 10.

Criterion Number 16. Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining

could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

Exemptions. This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Analysis – Areas of the Forest identified as having coal development potential include riverine floodplains. However, the majority of these floodplains are not developed or occupied, therefore this criteria does or does not apply?. Stipulated methods of underground mining are not expected to change watershed characteristics sufficiently to alter flood threats or risk. . The exemption to this criteria would apply, if identified.

Criterion Number 17. Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

Exception. A lease may be issued where the surface management agency in consultation with the municipality (incorporated entity) or the responsible governmental unit determines, as a result of studies, that all or certain stipulated methods of coal mining will not adversely affect the watershed to any significant degree.

Analysis – The Utah Division of Drinking Water has identified watersheds on the Forest that provide surface water used as drinking water. Most of the Wasatch and Gunnison Plateaus have been identified by the Bureau of Land Management as having high to moderate coal development potential; all watersheds on the Wasatch and Gunnison Plateaus are within these areas. Suitability for individual lease proposals would be determined based on site-specific analysis. Stipulated methods of mining may include provisions for mitigation.

Criterion Number 18. Federal lands with National Resource Waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands ¼ mile from the outer edge of the far banks of the water, shall be unsuitable.

Exception. The buffer zone may be eliminated or reduced in size where the surface management agency determines that it is not necessary to protect National Resource Waters.

Analysis – The State of Utah has identified all surface waters geographically located within the boundaries of National Forests and certain designated stream channels or basins as National Resource Waters (State Code R317-2-12). This includes areas identified as having coal development potential on the Forest.

The underground mining exemption (43 CFR §3461.1) and the exemption for surface operations and impacts that are incident to an underground coal mine [(Surface Mining Control and Reclamation Act, Section 522 (e) (2) (A)] would apply. Relative to the surface effects of underground mining this criterion would need to be analyzed on a site-specific basis for proposed lease actions to determine suitability.

Criterion Number 19. Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in §3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines or the Office of Surface Mining Reclamation and Enforcement when published, and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

Exemptions. This criterion does not apply to surface coal mining operations which produced coal in commercial quantities in the year preceding August 3, 1977, or which had obtained a permit to conduct surface coal mining operations.

Analysis – No areas identified as having coal development potential on the Forest have been designated or identified as Alluvial Valley Floors according to the definition in §3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines, or by the Office of Surface Mining Reclamation and Enforcement, therefore this criteria does not apply.

Criterion Number 20. Federal lands in a state to which is applicable a criterion (i) proposed by the state or Indian tribe located in the planning area, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable.

Exceptions. A lease may be issued when:

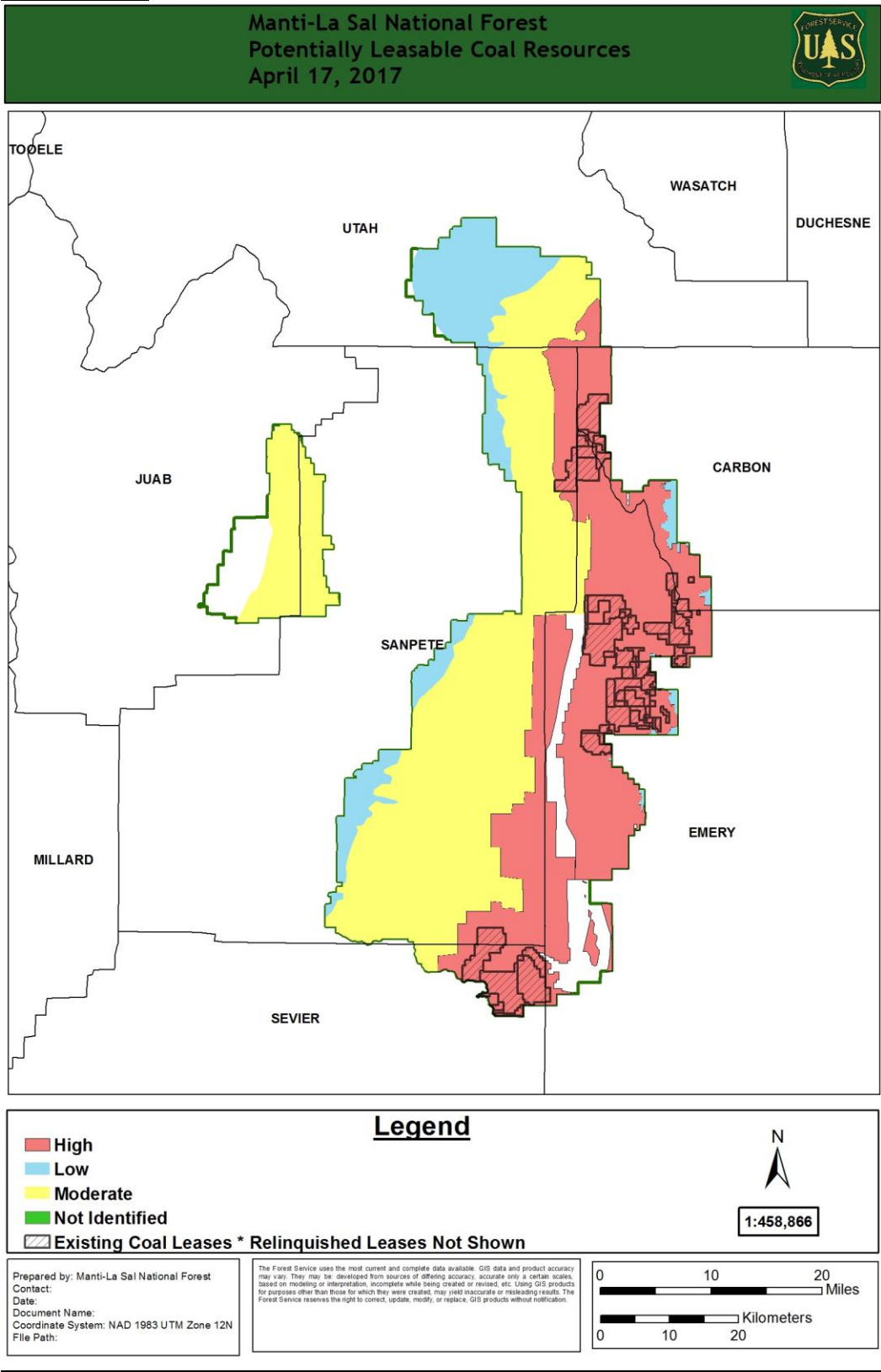
- (i) Such criterion is adopted by the Secretary less than 6 months prior to the publication of the draft comprehensive land use plan or land use analysis plan, or supplement to a comprehensive land use plan, for the area in which such land is included, or
- (ii) After consultation with the state or affected Indian tribe, the surface management agency determines that all or certain stipulated methods of coal mining will not adversely affect the value which the criterion would protect.

Analysis – The State of Utah under State rule, R645-103-300, Utah Criteria for Designating Areas as Unsuitable for Coal Mining and Reclamation Operations, has developed unsuitability criteria, which are similar to Federal criteria. No Indian Tribes

have proposed that any areas identified as having coal development potential on the Forest be designated as unsuitable for coal leasing/development.

DRAFT

Appendix A:



Appendix B: Utah Sensitive Species List for 6-counties located within the North Zone of the Manti-La Sal National Forest. This is extracted from the full county list (as of April 10, 2017).

Utah's State Listed Species by County *

**This list is a condensed excerpt from the State's individual county lists*

Disclaimer: This list was compiled using known species occurrences and species observations from the Utah Natural Heritage Program's Biodiversity Tracking and Conservation System (BIOTICS); other species of special concern likely occur in Utah Counties. This list includes both current and historic records. (Last updated on October 1, 2015).

Common Name	Scientific Name	State Status	Counties
American Three-toed Woodpecker*	Picoides dorsalis	SPC	J, Sa, Se, U
American White Pelican	Pelecanus erythrorhynchos	SPC	J, Se, U
Bald Eagle	Haliaeetus leucocephalus	SPC	C, E, J, Sa, Se, U
Big Free-tailed Bat	Nyctinomops macrotis	SPC	Se
Black Swift	Cypseloides niger	SPC	Se, U
Black-footed Ferret	Mustela nigripes	S-ESA	C, E
Bluehead Sucker	Catostomus discobolus	CS	C, E, Sa, U
Bobolink*	Dolichonyx oryzivorus	SPC	U
Bonneville Cutthroat Trout	Oncorhynchus clarkii utah	CS	C, J, Sa, Se, U
Bonytail	Gila elegans	S-ESA	C, E
Brown (Grizzly) Bear*	Ursus arctos	S-ESA	Sa, Se, U
Burrowing Owl	Athene cunicularia	SPC	C, E, J, Sa, Se
California Floater	Anodonta californiensis	SPC	J, U
Canada Lynx	Lynx canadensis	S-ESA	E, Sa, Se
Carinate Glenwood Pyrg	Pyrgulopsis inopinata	SPC	Se
Colorado Pikeminnow	Ptychocheilus lucius	S-ESA	C, E
Colorado River Cutthroat Trout	Oncorhynchus clarkii pleuriticus	CS	C, E, Sa, Se, U
Columbia Spotted Frog	Rana luteiventris	CS	J, Sa, U
Dark Kangaroo Mouse *	Microdipodops megacephalus	SPC	J
Eureka Mountainsnail	Oreohelix eurekensis	SPC	J, U
Ferruginous Hawk	Buteo regalis	SPC	C, E, J, Sa, Se, U
Flannelmouth Sucker	Catostomus latipinnis	CS	C, E
Fringed Myotis	Myotis thysanodes	SPC	J, Se, U
Grasshopper Sparrow *	Ammodramus savannarum	SPC	J, Sa
Great Plains Toad	Bufo cognatus	SPC	C, E
Greater Sage-grouse	Centrocercus urophasianus	SPC	C, E, J, Sa, Se, U
Humpback Chub	Gila cypha	S-ESA	C, E
June Sucker	Chasmistes liorus	S-ESA	U
Kit Fox	Vulpes macrotis	SPC	C, E, J, Sa, Se, U

Least Chub	Iotichthys phlegethontis	CS	J, U
Lewis's Woodpecker	Melanerpes lewis	SPC	J, Sa, U
Long-billed Curlew *	Numenius americanus	SPC	J, Sa, Se, U
Ninemile Pyrg	Pyrgulopsis nonaria	SPC	Sa
Northern Goshawk	Accipiter gentilis	CS	C, E, J, Sa, Se, U
Otter Creek Pyrg	Pyrgulopsis fusca	SPC	Se
Pygmy Rabbit	Brachylagus idahoensis	SPC	J, Se
Razorback Sucker	Xyrauchen texanus	S-ESA	C, E
Roundtail Chub	Gila robusta	CS	C, E, U
Short-eared Owl*	Asio flammeus	SPC	J, Se, U
Smooth Glenwood Pyrg	Pyrgulopsis chamberlini	SPC	Se
Smooth Grasssnake*	Opheodrys vernalis	SPC	U
Southern Bonneville Springsnail	Pyrgulopsis transversa	SPC	Sa, U
Southern Leatherside Chub	Lepidomeda aliciae	SPC	J, Sa, Se, U
Spotted Bat*	Euderma maculatum	SPC	U
Townsend's Big-eared Bat *	Corynorhinus townsendii	SPC	C, E, J, Sa, Se, U
Utah Physa*	Physella utahensis	SPC	J, U
Utah Prairie-dog	Cynomys parvidens	S-ESA	Sa, Se
Western Red Bat *	Lasiurus blossevillei	SPC	C, U
Western Toad	Bufo boreas	SPC	C, E, J, Sa, Se, U
White-tailed Prairie-dog	Cynomys leucurus	SPC	C, E, U
Yellow-billed Cuckoo	Coccyzus americanus	S-ESA	U

**These species are not included on the 2015 UT WAP.*

C – Carbon County, **E** – Emery County, **J** – Juab County, **Sa** – Sanpete County, **Se** – Sevier County, **U** – Utah County

Appendix C: Utah's 2015 Wildlife Action Plan (WAP) species of greatest conservation need (SGCN). This list includes the 6-counties located within the North Zone of the Manti-La Sal National Forest. This is extracted from the full county list (as of April 10, 2017).

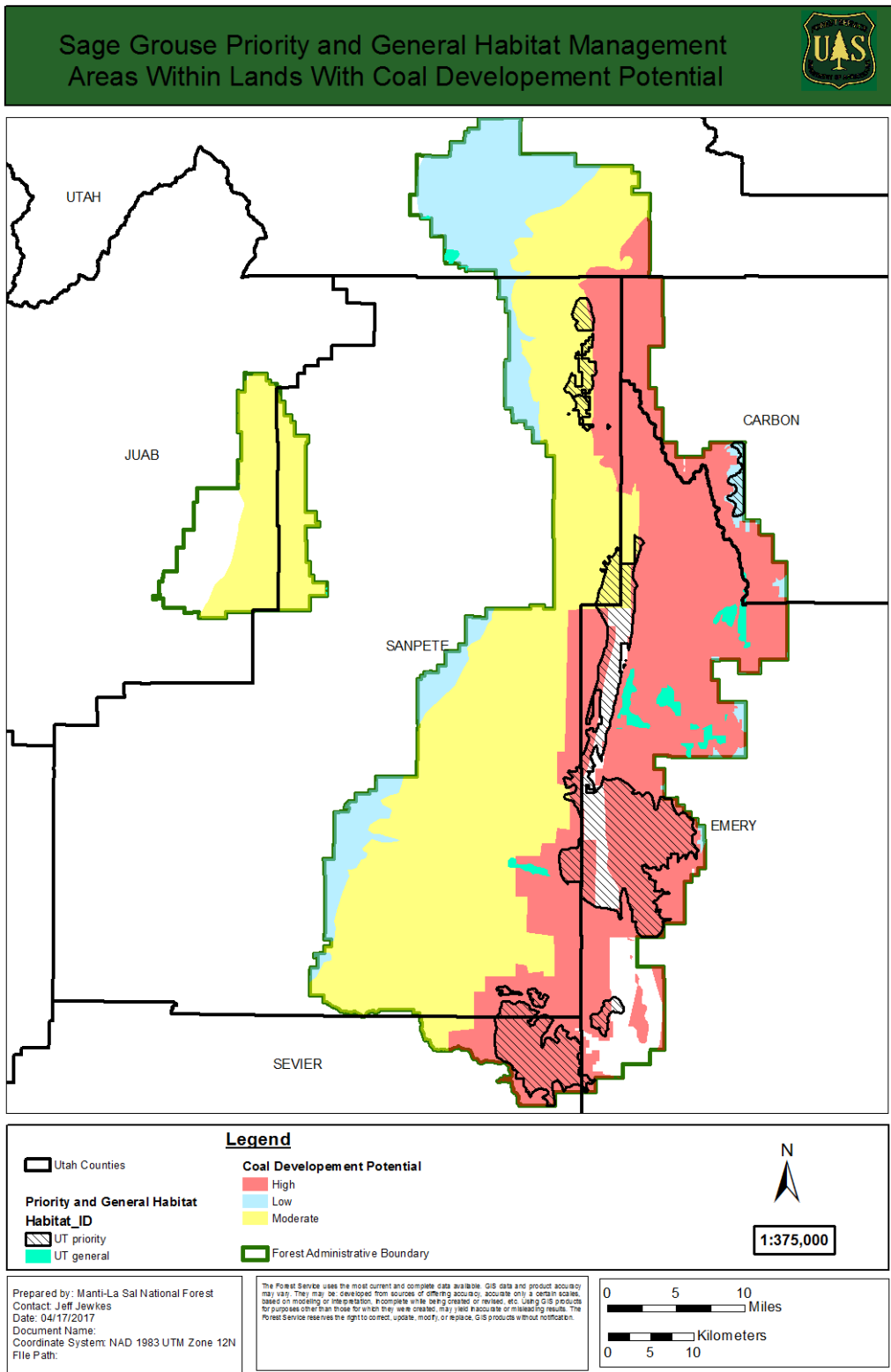
Common Name	Scientific Name	ESA Status	Counties
American Pika*	Ochotona princeps		Sa, Se, U
American White Pelican	Pelecanus erythrorhynchos		J, Se, U
Bald Eagle	Haliaeetus leucocephalus		C, E, J, Sa, U
Band-tailed Pigeon*	Patagioenas fasciata		U
Big Free-tailed Bat	Nyctinomops macrotis		Se
Black Rosy-finch*	Leucosticte atrata		E
Black Swift	Cypseloides niger		U
Black-footed Ferret	Mustela nigripes	Endangered	E
Bluehead Sucker	Catostomus discobolus		C, E, Sa
Bonneville Cutthroat Trout	Oncorhynchus clarkii utah		C, J, Sa, Se, U
Bonytail	Gila elegans	Endangered	C, E
Burrowing Owl	Athene cunicularia		C, E, J, Sa, Se, U
California Floater	Anodonta californiensis		J
Canada Lynx	Lynx canadensis	Threatened	E, Se
Carinate Glenwood Pyrg	Pyrgulopsis inopinata		Se
Caspian Tern*	Sterna caspia		U
Colorado Pikeminnow	Ptychocheilus lucius	Endangered	C, E
Colorado River Cutthroat Trout	Oncorhynchus clarkii pleuriticus		C, E, Sa, Se, U
Columbia Spotted Frog	Rana luteiventris		J, Sa, U
Eureka Mountainsnail	Oreohelix eurekensis		J, U
Ferruginous Hawk	Buteo regalis		C, E, J, Sa, U
Flammulated Owl*	Otus flammeolus		C, J
Flannelmouth Sucker	Catostomus latipinnis		C, E
Fringed Myotis	Myotis thysanodes		J
Golden Eagle*	Aquila chrysaetos		C, E, J, Sa, Se, U
Great Plains Toad	Bufo cognatus		E
Greater Sage-grouse	Centrocercus urophasianus	Candidate	C, E, J, Sa, Se, U
Green River Pebblesnail*	Fluminicola coloradoensis		U
Humpback Chub	Gila cypha	Endangered	C, E
June Sucker	Chasmistes liorus	Endangered	U
Kit Fox	Vulpes macrotis		E, J
Least Chub	Iotichthys phlegethontis	Candidate	J
Lewis's Woodpecker	Melanerpes lewis		J, Sa, Se, U
Little Brown Myotis	Myotis lucifugus		U
Ninemile Pyrg	Pyrgulopsis nonaria		Sa
Northern Leopard Frog	Rana pipiens		C, E, J, Sa, Se, U
Otter Creek Pyrg	Pyrgulopsis fusca		Se
Peregrine Falcon*	Falco peregrinus		C, E, J, Sa, Se, U

Pygmy Rabbit	Brachylagus idahoensis		Se
Razorback Sucker	Xyrauchen texanus	Endangered	C, E
Roundtail Chub	Gila robusta		C, E
Smith's Black-headed Snake*	Tantilla hobartsmithi		C
Smooth Glenwood Pyrg	Pyrgulopsis chamberlini		Se
Snowy Plover*	Charadrius nivosus		J, U
Southern Bonneville Springsnail	Pyrgulopsis transversa		Sa, U
Southern Leatherside Chub	Lepidomeda aliciae		J, Sa, Se, U
Utah Prairie-dog	Cynomys parvidens		Se
Western Toad	Bufo boreas		E, Se, U
White-tailed Prairie-dog	Cynomys leucurus		C, E
Wolverine*	Gulo gulo		Sa
Yellow-billed Cuckoo	Coccyzus americanus	Candidate	E, J, U

*These species are not included in the UT Sensitive Species list (as of April 10, 2017).

C – Carbon County, **E** – Emery County, **J** – Juab County, **Sa** – Sanpete County, **Se** – Sevier County, **U** – Utah County

Appendix D: Map showing the Sage Grouse Priority Habitat Management Areas (PHMA) and General Habitat Management Areas (GHMA) within the lands with coal development potential.



Appendix E: Applicable standards and guidelines from the US Forest Service 2015 Greater Sage Grouse Record of Decision (ROD).

GRSG-GEN-ST-006-Standard – Do not authorize new surface disturbing and disruptive activities that create noise at 10dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.

GRSG-GEN-GL-009-Guideline – Development of tall structures within 2 miles from the perimeter of occupied leks, as determined by local conditions (e.g., vegetation or topography), with the potential to disrupt breeding or nesting by creating new perching/nesting opportunities for avian predators or by decreasing the use of an area, should be restricted within nesting habitat.

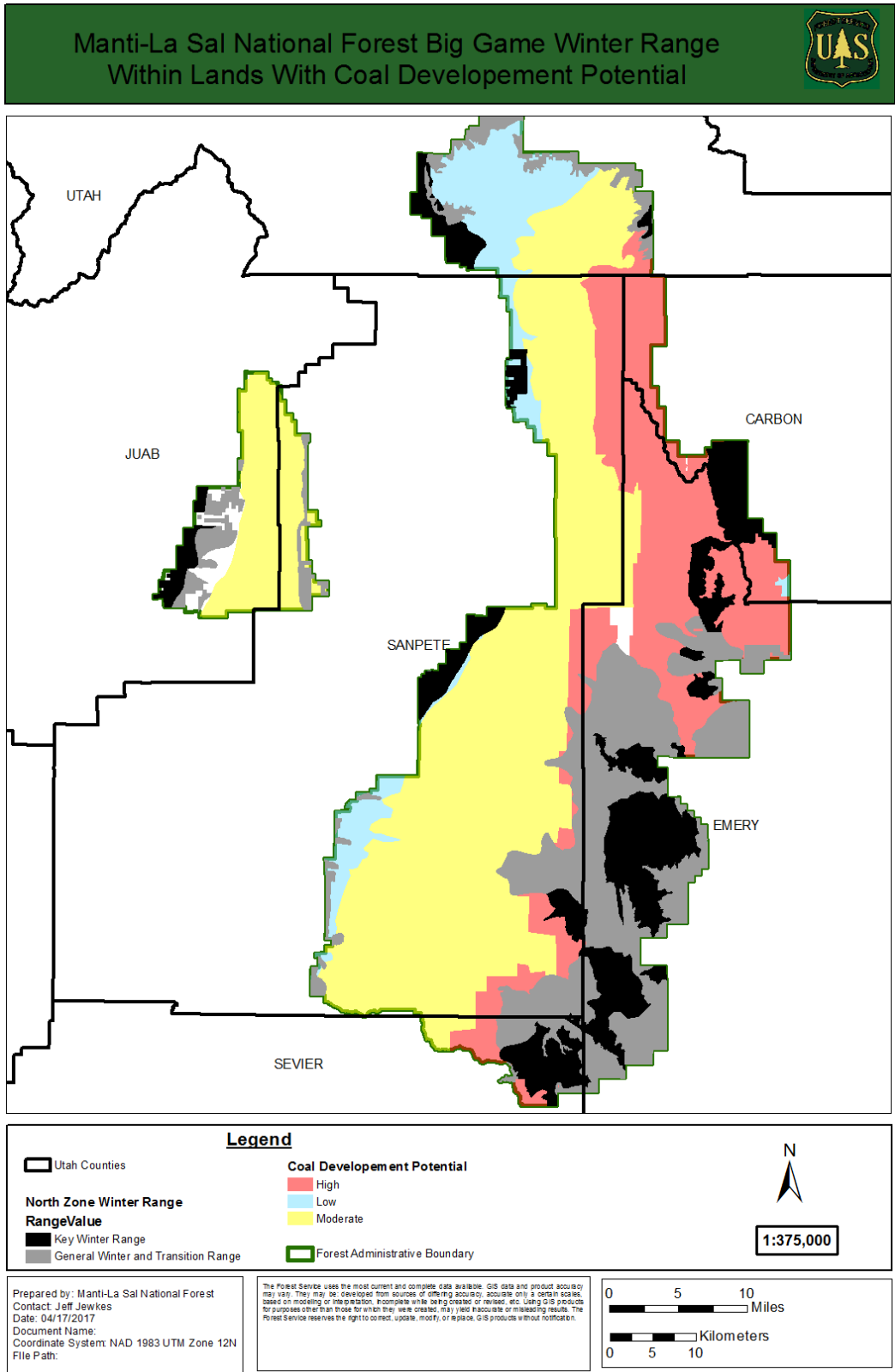
Coal Mines – Unleased

GRSG-M-CMUL-ST-091-Standard – When consenting to new underground coal leases, include a lease stipulation prohibiting the location of surface facilities in priority habitat management areas, sagebrush focal areas, and Anthro Mountain.

Coal Mines – Leased

GRSG-M-CML-ST-092-Standard – In priority habitat management areas, sagebrush focal areas, and Anthro Mountain, do not authorize new appurtenant surface facilities related to existing underground mines unless no technically feasible alternative exists. If new appurtenant surface facilities associated with existing mine leases cannot be located outside of priority habitat management areas and sagebrush focal areas, locate them within any existing disturbed areas, if possible. If location within an existing disturbed area is not possible, then construct new facilities to minimize disturbed areas while meeting mine safety standards and requirements as identified by the Mine Safety and Health Administration mine-plan approval process and locate the facilities in an area least harmful to greater sage-grouse habitat based on vegetation, topography, or other habitat features.

Appendix F: Manti-La Sal National Forest big game (elk and mule deer) key and general winter ranges within lands with coal development potential.



Appendix G. UDNR Utah Department of Wildlife Resources (UDWR) winter ranges within lands with coal development potential with Elk and Mule deer habitat layers included from the UDWR GIS database (accessed April 12, 2017).

